

WHAT IS CLAIMED IS:

1. A semiconductor laser device comprising:

a semiconductor laser for emitting laser light toward an object to be irradiated;

5 a diffracting section for diffracting the laser light reflected on the object according to a polarization direction of the reflected laser light to deviate the reflected laser light from a direction toward the semiconductor laser.

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2. The semiconductor laser device as set forth in claim 1, further comprising:

a hologram device having a signal hologram; and a light-receiving device, wherein

15 the laser light emitted from the semiconductor laser is applied to the object to be irradiated by way of the signal hologram,

the laser light reflected on the object is diffracted by the hologram device, and

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the diffracted laser light is received by the light-receiving device.

3. The semiconductor laser device as set forth in claim 1, wherein

25 the diffracting section is comprised of a polarizing diffraction grating,

the polarizing diffraction grating is constructed so that a diffraction efficiency of the diffracted light rays other than zero-order diffracted light is approximately zero percent with respect to light that has a 5 first polarization direction, and that a diffraction efficiency of the diffracted light of the zero-order diffracted light is approximately zero percent with respect to light that has a second polarization direction perpendicular to the first polarization direction.

10 4. The semiconductor laser device as set forth in claim 1, further comprising:

a quarter-wavelength plate, wherein the diffracting section and the quarter-wavelength plate are arranged in order toward the 15 semiconductor laser.

5. The semiconductor laser device as set forth in claim 1, further comprising:

a base on which the semiconductor laser is mounted; and

20 a cap having a window through which the laser beam passes and attached to the base, wherein

the diffracting section is comprised of a polarizing diffraction grating and

25 the polarizing diffraction grating is attached to the window.

6. The semiconductor laser device as set forth in
claim 5, further comprising:

5 a quarter-wavelength plate attached to the window
so as to be superposed on the polarizing diffraction
grating.

7. The semiconductor laser device as set forth in
claim 2, wherein

the diffracting section is comprised of a
polarizing diffraction grating, and

10 the signal hologram and the polarizing
diffraction grating are arranged on an optical axis of an
optical path of the reflected laser light toward a light-
emitting point of the semiconductor laser.

8. The semiconductor laser device as set forth in
15 claim 1, wherein

the diffracting section is comprised of a
polarizing diffraction grating formed by a linear grating
with a roughly equal pitch.

9. The semiconductor laser device as set forth in
20 claim 2, wherein

the diffracting section is comprised of a
polarizing diffraction grating, and

25 the diffracted light diffracted by the signal
hologram does not pass through the polarizing diffraction
grating.

10. The semiconductor laser device as set forth in
claim 2, wherein

the diffracting section is comprised of a
polarizing diffraction grating, and

5 a quarter-wavelength plate is provided in the
hologram device.

11. The semiconductor laser device as set forth in
claim 2, wherein

the diffracting section is comprised of a
10 polarizing diffraction grating, and

the hologram device is an optical member that
integrally has the signal hologram and the polarizing
diffraction grating.

12. The semiconductor laser device as set forth in
15 claim 2, wherein

the diffracting section is comprised of a
polarizing diffraction grating, and

the signal hologram and the polarizing
diffraction grating are provided as separate optical
20 members.

13. The semiconductor laser device as set forth in
claim 2, wherein

the diffracting section is comprised of a
polarizing diffraction grating, and

25 the semiconductor laser, the signal hologram, the

polarizing diffraction grating and the light-receiving device are integrated in one package.

14. The semiconductor laser device as set forth in claim 1, wherein

5 the diffracting section is comprised of a polarizing diffraction grating, and

the polarizing diffraction grating has a lens characteristic such that the reflected laser light forms an image on a surface different from a light-emitting end 10 surface of the semiconductor laser and a extended surface of the light-emitting end surface in a direction along which the reflected light travels or a lens characteristic such that the reflected laser light is formed into parallel light.

15 15. An optical pickup device comprising:

the semiconductor laser device set forth in claim 1 wherein the diffracting section is comprised of a polarizing diffraction grating,

20 an optical system guiding the laser light emitted from the semiconductor laser to an optical recording medium that serves as the object to be irradiated and guiding the light reflected from the optical recording medium to the polarizing diffraction grating, wherein

25 the optical system has a phase difference plate for changing a state of polarization of the light emitted

from the semiconductor laser from linearly polarized light into circularly polarized light or from circularly polarized light into linearly polarized light.

16. An optical pickup device comprising:

5 the semiconductor laser device set forth in claim 2, and

a photodetector for detecting the laser light reflected from the object to be irradiated.